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AUTHOR Albrecht, Gary L.

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ABSTRACT

This paper is concerned with the dynamics of the adult socialization process. The general hypothesis is: the level of aspiration of a patient is positively associated with his socialization (his rehabilitation) outcome. Subjects were 105 patients with spinal cord injuries or amputations. The two aspects of socialization considered in the study are physical functions and attitudinal adjustment. These variables, along with social interaction and aspiration were measured using a variety of techniques and instruments. Results showed: (1) aspiration does have a clear effect on a patient's rehabilitation as measured by level of physical function and as measured by attitudinal adjustment; (2) aspiration is predictive of improvement in physical function and attitudinal adjustment; and (3) a specific goal which is valued by the individual, significant others and the larger society positively affects socialization. (KJ/Author)



Adult Socialization: The Effects of Aspiration Upon Role Performance In Rehabilitation Settings

by

Gary L. Albrecht Emory University

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Paper presented at the American Psychological Association meetings in Miami, Florida, September 3-8, 1970. This research was supported in part by the Social and Rehabilitation Services of the U.S. Department of Health, Education and Welfare R and T-6 Grant and by the Georgia Mental Health Institute. The data processing was performed by the Emory University Computing Center. Grady Memorial Hospital and the Georgia Warm Springs Foundation facilitated the collection of the data.

This research addressed itself to the question: "What are some of the dynamics of the adult socialization process?" Within recent years more and more attention is being devoted to the adult years in the socialization process. The work of Goslin (1969), Brim and Wheeler (1966), Clausen, et al (1968), and Preiss and Ehrlich (1966) draw notice to these latter stages in the socialization process. This same theoretical interest in adult socialization has stimulated a number of studies that focus on the problems of adult socialization that confront the disabled individual. Safilios-Rothschild examined the effects of motivation upon rehabilitation outcome (1970: 142-56; 217-21) noting that certain motivational variables facilitate recovery, some have no influence, while others impede rehabilitation. Scott (1969) vividly portrays the effect of interaction with agencies for the blind upon the blind client. In many ways agencies serve to make the individual who has lost his sight dependent upon others. Lukoff (1967) studies the adjustment of the adult to blindness; Davis (1963) focused on polio victims and their families; the multiple aspects of the disengagement process received the attention of Cummings and Henry (1961); Cogswell (1967) investigated the socialization of paraplegics into new roles. She discovered in looking at her longitudinal data that the rehabilitation of the paraplegic must be studied as a long term process. She treats four sequential stages in this process: 1) abandonment of the old role, 2) identifying with the new role,) overemphasizing the new role for mastery, and 4) integrating the new role into a total constellation of roles. Sociological variables such as previous organizational and physical participation, family reinforcement, and financial worry were found by Litman (1964) to be related to the rehabilitation outcome of physically handicapped patients. In a study that does not clearly measure some major variables, Fogel and Rosillo (1969) concluded that the emotional attitudes brought into the rehabilitation center, patients' expectations of treatment, attitudes towards the staff and motivation for recovery are also related to the rehabilitation response of the physically disabled. Finally, Cain (1969) demonstrates that progress in physical therapy and psychological



status are related to age, average number of treatments per week, and length of hospital stay.

In reviewing the literature on adult socialization and especially the studies relating to disabled individuals, aspiration, learning and activity on the part of the disabled person seem to be essential ingredients of effective socialization. Because the socialization process that occurs in a rehabilitation setting strongly emphasizes aspiration, learning and activity, it provided an excellent opportunity to study the dynamics of adult socialization. If aspiration is a critical variable in the socialization process, then the level of aspiration of patients in a rehabilitation setting should have an effect upon their rehabilitation outcome. Thus, the general research hypothesis of this study is: The level of aspiration of a patient is positively associated with his socialization (his rehabilitation) outcome.

The sample for this study included all of the spinal cord injury and amputee patients that entered the Physical Medicine and Rehabilitation Ward of Atlanta's large city hospital, Grady Memorial Hospital, and The Georgia Warm Springs Foundation, a private rehabilitation institution, between January 8, 1968, and June 14, 1968.

A check of the records from these and other rehabilitation institutions showed that the patients entering the facilities during this time period were representative of the population of patients treated in these institutions. Each patient was interviewed within two days after his entry into the rehabilitation setting, after his first ten days of hospitalization and during the last two days before his release from the hospital. In addition to this interview material, each patient's hospital record was used to collect the basic medical and demographic information.

One hundred and twenty-two spinal cord injury and amputee patients entered the two institutions during the stated time period. These patients were followed by the researcher until the time that they left the rehabilitation facility. Seventeen patients in the original sample were excluded from consideration in the final analysis. These included those individuals who were severely brain damaged, under

sixteen years of age, senile, hostile and uncooperative, gave inconsistent and invalid responses to tests and scales, and those who, without warning, walked off the wards before they were dismissed by their physicians. The reasons for excluding these patients were: 1) the responses and data gathered on these individuals were not valid and, therefore, not useful; and/or 2) the researcher could not get the after measures on the patients who had left without warning. Since measures were not obtained on all of the dependent variables at outcome for this latter group, they could not be included in the study. A comparison was made of the 17 excluded from and the 105 accepted in the sample. While it was impossible to compare these groups on attitudes (there were no valid after measures of attitudes for the excluded group), the two groups showed no statistically significant differences in the level of physical function at outcome. Furthermore, these two groups manifested no statistically significant differences on the variables of age, disability categories, sex, social class, length of stay in the hospital, and initial level of aspiration.

The sample of 105 patients included in the study remained in the hospital from 12 to 359 days. They were skewed toward the lower social classes, rather evenly distributed in age from 17 to 74, and from all over the Southeastern United States. Eighty-two percent of the sample had received traumatic injuries while 18 % were injured as a result of disease. Of the 105 subjects, 61% were whit and 39% negro; 69% were male and 31% female.

This study utilizes a before-after research design which focuses on three sets of variables in the socialization process. They can be conceptually represented as input, process and output variables which are measured in a temporal sequence. A listing of these variables in their temporal sequence is presented in Table 1.

Insert Table 1 Here

The input variables were measured shortly after the patient's entry into the



TABLE 1

TEMPORAL SEQUENCE OF THE THEORETICAL VARIABLES

IN THE REHABILITATION-SOCIALIZATION PROCESS

Inp			ut		Process	Outcome
Birth		Onset	Background	(Time ₁)	(Time ₂)	(Time ₃)
· ———					·	·
Race	Social Class	Type of Disability	Age	Aspiration	Length of Stay	Physical Function
Sex			Number of Admissions	·	Social Interaction	Attitudinal Adjustment
			Institutions		•	

rehabilitation system (T_1) , the process variable of interaction was measured between the first and third week of the patient's stay (T_2) , the output variables were measured both at the beginning of the patient's residence in the hospital and just before his departure (T_1, T_3) , and the length of stay was determined after he left the rehabilitation center.

For the purposes of this research, aspiration is defined as role expectations of the individual towards himself, and interaction is defined as the process by which the human acts in awareness of others and adjusts his behavior and responses to the behavior and responses of others. Multiple operational measures of the major variables were used in this study. Social interaction is measured by the total number of contacts with other people and by the total amount of time spent in inter-Aspiration is measured by the patient's plans on leaving the hospital, his perception of his family's reaction to his injury, his perception of competition and his hope to go to work. The other explanatory (independent) variables considered in the research are length of stay, age, number of previous admissions for the present medical condition, institution, type of disability, social class, race and sex. The two aspects of socialization outcome considered in the study are physical functions and attitudinal adjustment. The outcome (dependent) variable of physical function was measured by Katz's Activities of Daily Living Scale (ADL), the Highland View Hospital Index (HVI) and the Mobility Index developed at Highland View Hospital in Cleveland, Chio. Attitudinal adjustment, the other dependent variable, was measured by the Berger-Self Scale which measures attitudes toward self, the Berger-Other Scale which measures attitudes toward other people, and the Yuker Attitudes Toward Disabled People Scale.

The dependent variables were intercorrelated to ascertain whether in fact the multiple measures of these variables were measuring the same behavior or attitudes.

Table 2 presents the results.



Insert Table 2 Here

The measures of level of physical function intercorrelated from .83 to .90. The correlation between Berger-Self and Berger-Other was .57, but the Berger-Self Scale only correlated -.09 with the Yuker Attitudes Toward Disabled People Scale. The Berger-Other Scale correlated -.01 with the Yuker Scale. A components analysis of these variables, Table 3, illustrates that the measures of level of physical function and the measures of attitudinal adjustment were in fact measuring two discrete sets of factors as purported.

Insert Table 3 Here

These data indicate that the multiple measures of physical function do indeed measure the same variable and that the indicators of attitudinal adjustment, though not measuring the same variable, are measuring different but related dimensions of attitudinal adjustment. Having established the dependent variables, the analysis of variance as a special case of the general linear hypothesis is used to analyze the data.

When the dependent variable is physical function as measured by HVM, the analysis of variance presented in Table 4 shows that aspiration, as measured by plans on leaving the hospital and perception of competition, is statistically significant at the .01 level.

Insert Table 4 Here

Aspiration, perception of family's reaction to the patient, is statistically significant at the .05 level. The last measure of aspiration, hope to return to work,



TABLE 2

CORRELATION MATRIX OF THE SIX MEASURES OF THE OUTPUT VARIABLES

	Self	Other	ATDP	ADL	нун	Mobility
C-15	1.00					
Self	1.00				·	
Other	.569	1.00	÷			
ATDP	09	01	1.00		•	
ADL	04	01	01	1.00		
нун	04	02	01	.898	1.00	
Mobility	06	09	04	.848	. 834	1.00

TABLE 3

PRINCIPAL COMPONENTS OF THE DEPENDENT VARIABLES

Principal Components

1	2	3	4	5	
.07	.70	.02	.70	.05	
.06	.69	.16	69	10	٠.
.01	13	.99	.10	04	
58	.07	.03	06	.30	•
58	.06	04	02	.48	
58	.02	.09	.09	81	
			•		
	.06 .01 58 58	.07 .70 .06 .69 .0113 58 .07 58 .06 58 .02	.07 .70 .02 .06 .69 .16 .01 13 .99 58 .07 .03 58 .06 04 58 .02 .09	.07 .70 .02 .70 .06 .69 .16 69 .01 13 .99 .10 58 .07 .03 06 58 .06 04 02 58 .02 .09 .09	.07 .70 .02 .70 .05 .06 .69 .16 69 10 .01 13 .99 .10 04 58 .07 .03 06 .30 58 .06 04 02 .48 58 .02 .09 .09 81

TABLE 4 ANALYSIS OF VARIANCE WHERE THE DEPENDENT VARIABLE IS HVH

	DF	ss	MS_	F
Length of stay	3	6.07	2.02	8.10**
Interaction - time	3	1.85	.62	2.47
Interaction - contacts	3	2.46	.82	3.29*
Aspiration - socialization, work, retirement	2	4.69	2.35	9.40**
Aspiration - family	2	2.61	1.30	5.22*
Aspiration - hope to go back to work	1	.06	.05	.21
Aspiration - competition	. 1	2.56	2.56	10.23**
Aspiration x interaction - time	18	17.80	.99	3.96**
Aspiration x interaction - contacts	18	7.25	.40	1.61
HVH Time 0	1	27.69	27.69	110.89**
Age	5	1.68	. 34	1.35
Number of admissions	3	1.35	.45	1.81
Institution	1	.07	.07	.29
Type of disability	2	.92	.46	1.85
-Social-class	4	.57	.14	.57
Race	1	.36	.36	1.46
Sex	11	.42	.42	1.69
Subtotal (SSR)	69	78.42	1.14	4.55*
Error (SSE)	35	8.74_	.25	
Total (SST)	104	87.16	·	<u> </u>

^{*}means statistical significance at the .05 level.
**means statistical significance at the .01 level.



is not significant. The results leave little doubt that the explanatory variable, aspiration, with the exception of hope to return to work, has a statistically significant effect on the dependent variable physical function. It should be noted in this and following analysis of variance tables that variables other than aspiration also show statistical significance. This paper is written from a much larger study which takes the entire set of independent variables into account. However, due to the time limitations of the presentation only the aspirational variables are discussed in this paper.

In the instance where the dependent variable is attitudes toward one's self,

Table 5, aspiration as measured by perception of competition and hope to go back to

work is not statistically significant.

Insert Table 5 Here

However, the aspirational measures, plans on leaving the hospital and perception of the family's reaction to the patient, are both statistically significant; the first at the .01 level, the other at the .05 level.

In Table 6, when Berger-Other is used as the dependent variable, aspiration, plans on leaving the hospital and hope to go back to work, are statistically insignificant.

Insert Table 6 Here

However, aspiration, perception of family's reaction to the patient and perception of competition, are statistically significant; the former at the .01 level and the latter at the .05 level. Aspiration appears to have a significant effect on attitudinal adjustment as measured by Berger-Other. The identical pattern prevails when attitudes toward other people is the dependent variable, Table 7.



TABLE 5

ANALYSIS OF VARIANCE WHERE THE DEPENDENT VARIABLE IS BERGER-SELF

	DF	SS	MS	F
Length of stay	3	5,926.01	1,975.34	9.85**
Interaction - time	2	648.03	216.01	1.08
Interaction - contacts	3	1,337.26	445.75	2.22*
Aspiration - socialization, work, retirement	2	5,687.27	2,843.64	14.18**
Aspiration - family	2	1.712.68	856.34	4.27*
Aspiration - hope to go back to work	1	515.18	515.18	2.57
Aspiration - competition	1	39.00	39.00	. 19
Aspiration x interaction - time	18	7,405.33	411.41	2.05*
Aspiration x interaction - contacts	18	6,552.06	364.00	1.82
Berger-Self Time 0	· 1	12,463.50	12,463.50	62.18**
Age	5	231.93	46.39	.23
Number of admissions	3	742.15	247.38	1.23
Institution	1	1,082.69	1,082.69	5.40
Type of disability	2	603.13	301.56	1.50
Social class	4	944.51	236.13	1.18
Race	ĺ	63.41	63.41	.32
Sex	1	852.36	852.36	4.25*
Subtotal	69	46,806.50	678.36	3.40
Error	35	7,016.04	200.46	<u> </u>
Total	104	53,822.53	•	

TABLE 6

ANALYSIS OF VARIANCE WHERE THE DEPENDENT VARIABLE IS BERGER-OTHER

	DF	SS	MS	F
Length of stay	3	1,386.84	462.28	1.76
Interaction - time	. 3	460.56	153.52	2.53
Interaction - contacts	3	402.73	134.24	2.21
Aspiration - socialization, work, retirement	2	191.67	95.83	1.58
Aspiration - family	2	851.44	425.72	7.90**
Aspiration - hope to go back to work	1	111.74	111.74	1.84
Aspiration - competition	1	415.27	415.27	6.83*
Aspiration x interaction - time	18	1,986.06	110.34	1.81
Aspiration x interaction - contacts	18	3,729.41	207.19	3.41**
Berger-Other Time O	1	2,695.98	2,695.98	44.35**
Age	5	519.33	103.87	1.71
Number of admissions	3	1,266.97	422.32	6.95**
In-titution	1	113.07	113.07	1.86
Type of disability	2	47.04	23.52	. 39
Social class	4	145.12	, 36.28	.60
Race	1	15.57	15.57	.26
Sex	1	56.25	56.25	.93
Subtotal	69	14,395.05	208.62	3.43
Error	35	2,127.75	208.62_	3.43
Total	104	16,522.80		



Insert Table 7 Here

Aspiration then does have a clear effect on a patient's rehabilitation outcome as measured by level of physical function and as measured by attitudinal adjustment.

Further study of the data by regression analysis produced even more detailed results and suggested the following conclusions. Mere time spent in a rehabilitation setting does <u>not</u> mean that the patient will manifest a high level of physical function at outcome. This result is also compatible with a finding that no patient was released from either institution who had fallen in his level of physical function. Some patients who came to the rehabilitation institutions and suffered medical or functional setbacks were kept for longer periods of time until they at least returned to the state at which they entered.

Aspiration, however, as measured by plans on leaving the hospital, perception of the family's reaction to the patient, and patient's perception of competition were predictive of improvement in physical function and attitudinal adjustment.

A patient who plans to retire, who is protected by his family and who does not perceive himself to be in a competitive situation does not have to be physically independent to assume these roles in occupational or family systems. A form of the "self fulfilling prophecy is operative here" (Merton 1949: 129-9). The patient does not expect much of himself and he does not perceive that others do either, so he lives up to these expectations by not performing well. The impact of the data could not give stronger support to the theoretical importance of role expectations and role demands.

In this case, there is a congruency between the role expectations of self and others with future role performance (Sarbin and Allen 1968: 522-7). If, on the other hand, the patient had a high future occupational role expectation and his family were protective, incorgruent role expectations would result. This conflict could be



TABLE 7

ANALYSIS OF VARIANCE WHERE THE DEPENDENT VARIABLE IS ATDP

	DF	SS	MS	F
Length of stay	3	1,908.99	636.33	2.19
Interaction - time	3	875.12	291.71	1.01
Interaction - contacts	3	879.93	293.31	1.01
Aspiration - socialization, work, retirement	2	3,885.31	1,942.66	6.70**
Aspiration - family	2	2,056.41	1,028.20	3.54*
Aspiration - hope to go back to work	1 -	6.09	6.09	.02
Aspiration - competition	1	344.69	344.69	1.19
Aspiration x interaction - time	18	4,361.05	242.28	. 84
Aspiration x interaction - contacts	18	7,605.09	422.51	1.46
ATDP Time 0	1	13,584.15	13,584.15	46.84**
Age	. 5	661.65	132.33	. 46
Number of admissions	3	219.59	73.20	.25
Institution	1	98.31	98.31	.34
Type of disability	2	1,391.81	695.91	2.40
Social class	4	1,107.06	276.76	.95
Race	1	127.06	127.06	.44
Sex	1	18.01	18.01	.06_
Subtotal	69	39,130.33	567.11	1.96
Error	35	10,150.30	290.01	
Total	104	49,280.63		



resolved in a number of ways. The patient could convert the family to his view-point so that they would share his role expectations. However, the family would probably not tolerate his independent, achievement oriented role expectations.

Instead, they would exert pressure on him to scale down his role expectations to conform with theirs. The patient could adapt to this stress by onformity, innovation, ritualism, retreatism or rebellion (Merton 1949: 139-57). The experience of the researcher indicated that the patients either felt enough pressure to conform to the demands of their families or they decided to reject their families and moved on to a relatively independent way of life. Because of personal conditions and resources, some patients could successfully effect this transition while others could not.

The data on the relationships of aspiration to physical function further suggests that a specific goal which is valued by the individual, significant others and the larger society positively affects socialization. Such aspiration as plans for work activities and perception of competition demand that the individual set goals with a consequent risk of failure. The theoretical importance of setting definite functional goals and of having primary group support is highlighted by the positive relationships of plans for work and by the negative associations of plans for retirement and perception of a protective family with socialization outcome.

The effect of competition on socialization outcome is highly significant. Evaluating working and middle class children in terms of achievement motivation, Elizabeth Douvan (1956: 219-23) concluded that middle class children were more competitive and that working class children were more dependent on specific task rewards. The present research including middle, working and lower class subjects discovered no such differentiation in the socialization of adults. The definition and selection of a future task with its consequent role expectations and the perception of competition were significant for all social classes involved in the socialization process.



In Morton Deutsch's study (Cartwright and Zander: 461-484), "The Effects of Cooperation and Competition Upon Group Process," puzzle solving and human relations problems were presented to volunteer subjects. The data indicated that productivity per unit time and motivation was higher in cooperative groups. The trend analysis results even indicated that the amount of learning was higher in cooperative groups. The present research considers a somewhat different situation where the individual is the unit of analysis and the goal is rehabilitation of the individual. Under these conditions, perception of competition produces a higher level of physical function.

Comparison of the present research with such studies as those of Douvan and Deutsch suggest that experimental studies have often made intellectual tasks synonymous with performance and have frequently failed to consider the full import of the competitive aspects of aspiration on individual task performance on socialization. Such issues were raised by Dennis H. Wrong (1961: 183-93) who submitted that socialization research has often emphasized the internalization of norms and "complementarity of expectations" while neglecting individual motives of material interests, sexual drives and the quest for power.

In summary, the patterns in the data strongly support the research hypothesis and suggest a number of conclusions. First, social psychological variables are very effective in explaining adult socialization in a rehabilitation setting where there is great emphasis on physical performance. This adds strength to the argument that all human behavior is centrally affected by the socialization processes through which each individual passes. Second, not only does socialization occur in the adult years, but, as this research clearly points out, a great deal of learning does take place in adulthood. This learning has a dramatic effect on performance. During a relatively brief period of time, adults studied in this research effected serious changes in their physical performance and attitudinal adjustment. Third, in the



case of adult socialization, aspiration is often the product of and is influenced by a larger and deeper body of previous experience than is the case in childhood socialization. The child is more impressionable and often less resistant to changing his behavior. Finally, this study points out that aspiration is a critical explanatory variable because it provides goals to which the individual can orient his behavior. Furthermore, aspiration provides the impetus to get the individual actively involved in learning. Without this activity of learning, there is no socialization.



BIBLIOGRAPHY

- Brim, Orville G., Jr., and Stanton Wheeler, Socialization After Childhood: Two Essays, New York: Wiley and Sons, 1966.
- Cain, Leila S., "Determining the Factors that Affect Rehabilitation," <u>Journal</u> of the American Geriatrics Society, 17: 595-604.
- Cartwright, Dorwin, and Alvin Zander, eds., Group Dynamics 3rd ed., New York: Harper and Row, 1968.
- Clausen, John A. et al, eds., Socialization and Society, Boston: Little, Brown and Company, 1968.
- Cogswell, Betty F., "Rehabilitation of the Paraplegic: Processes of Socialization," Sociological Inquiry, XXXVII, 1967, pp. 11-26.
- Cummings, Elaine, and W. E. Henry, Growing Old: The Process of Disengagement, New York: Basic Books, 1961.
- Douvan, Elizabeth, "Social Status and Success Strivings," <u>Journal of Abnormal</u> and Social Psychology, 52:219-23.
- Fogel, Max L., and Ronald H. Rosillo, "Correlation of Psychological Variables and Progress In Physical Rehabilitation," <u>Diseases of the Nervous System</u>, 30: 593-601, Sept. 1969.
- Goslin, David A., ed., <u>Handbook of Socialization Theory and Research</u>, Chicago: Rand McNally, 1969.
- Litman, Theodore J., "An Analysis of the Sociologic Factors Affecting the Rehabilitation of Physically Handicapped Patients," Archives of Physical Medicine and Rehabilitation, 1964, pp. 9-16.
- Lukoff, Irving Fabe, "The Social Sources of Adjustment to Blindness: A Study of Role Differentiation," Ph.D. Dissertation, Columbia University, 1967.
- Merton, Robert K., Social Theory and Social Structure, New York: Free Press, 1949.
- Preiss, Jack J., and Howard J. Ehrlich, An Examination of Role Theory: The Case of the State Police, Lincoln: University of Nebraska Press, 1966.
- Safilios-Rothschild, Constantina, The Sociology and Social Psychology of Disability and Rehabilitation, New York: Random House, 1970.
- Sarbin, Theodore R., and Vernon L. Allen, "Role Theory," in Gardiner Lindzey and Elliott Aronson, eds., Social Psychology, Reading, Mass.: Addison-Wesley Publishing Company, 1968.
- Scott, Robert A., The Making of Blind Men, New York, Russell Sage Foundation, 1969.
- Wrong, Dennis H., "The Oversocialized Concept of Man In Modern Society," American Sociological Review, 26:183-93, 1961.

